



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0630; Directorate Identifier 2012-NM-213-AD]

RIN 2120-AA64

Airworthiness Directives; Fokker Services B.V. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Fokker Services B.V. Model F.28 Mark 0070 and 0100 airplanes. This proposed AD was prompted by a design review, which revealed that, under certain failure conditions, wiring in the main fuel tank could develop a short circuit that might cause a hot spot on the wiring conduit or puncture the wiring conduit wall. This proposed AD would require installing fuses in the power supply wiring and/or return wiring for various components in the fuel system; and revising the airplane maintenance program by incorporating critical design configuration control limitations. We are proposing this AD to prevent an ignition source in the main fuel tank vapor space, which could result in a fuel tank explosion and consequent loss of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 1357, 2130 EL Hoofddorp, the Netherlands; telephone +31 (0)88-6280-350; fax +31 (0)88-6280-111; email technicalservices@fokker.com; Internet <http://www.myfokkerfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the MCAI,

the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Tom Rodriguez, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone 425-227-1137; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0630; Directorate Identifier 2012-NM-213-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2012-0241, dated November 12, 2012 (referred to after this the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

Prompted by an accident* * *, the FAA published Special Federal Aviation Regulation (SFAR) 88, and the Joint Aviation Authorities (JAA) published Interim Policy INT/POL/25/12.

The design review conducted by Fokker Services on the Fokker 70 and Fokker 100 in response to these regulations revealed that under certain failure conditions of the wiring of the Overflow Valve Reed Switch, or the solenoid of the Level Control Pilot Valve (LCPV), or the solenoid of the Re/De-fueling Shut- Off Valve, or the Collector-Tank Low Level Float-Switch, a short circuit may develop that causes a hot spot on the wiring conduit, or puncturing of the wiring conduit wall in the main fuel tank.

This condition, if not corrected, could create an ignition source in the main fuel tank vapour space, possibly resulting in a fuel tank explosion and consequent loss of the aeroplane.

For the reasons described above, this [EASA]AD requires the installation of fuses in the power supply wiring and/or return wiring for the main tank overflow valve reed-switches, the LCPV solenoid, the Re/De-fuel shut-off valve solenoid and the collector-tank Low Level float switch and subsequently, the implementation of the associated Critical Design Configuration Control Limitations (CDCCL[s]) [and revising the maintenance program to incorporate the CDCCLs].

You may obtain further information by examining the MCAI in the AD docket.

The FAA has examined the underlying safety issues involved in fuel tank explosions on several large transport airplanes, including the adequacy of existing regulations, the service history of airplanes subject to those regulations, and existing maintenance practices for fuel tank systems. As a result of those findings, we issued a regulation titled “Transport Airplane Fuel Tank System Design Review, Flammability Reduction and Maintenance and Inspection Requirements” (66 FR 23086, May 7, 2001). In addition to new airworthiness standards for transport airplanes and new maintenance requirements, this rule included Special Federal Aviation Regulation No. 88 (“SFAR 88,” Amendment 21-78, and subsequent Amendments 21-82 and 21-83).

Among other actions, SFAR 88 (66 FR 23086, May 7, 2001) requires certain type design (i.e., type certificate (TC) and supplemental type certificate (STC)) holders to substantiate that their fuel tank systems can prevent ignition sources in the fuel tanks. This requirement applies to type design holders for large turbine-powered transport airplanes and for subsequent modifications to those airplanes. It requires them to perform design reviews and to develop design changes and maintenance procedures if their designs do not meet the new fuel tank safety standards. As explained in the preamble to the rule, we intended to adopt airworthiness directives to mandate any changes found necessary to address unsafe conditions identified as a result of these reviews.

In evaluating these design reviews, we have established four criteria intended to define the unsafe conditions associated with fuel tank systems that require corrective actions. The percentage of operating time during which fuel tanks are exposed to flammable conditions is one of these criteria. The other three criteria address the failure

types under evaluation: single failures, single failures in combination with a latent condition(s), and in-service failure experience. For all four criteria, the evaluations included consideration of previous actions taken that may mitigate the need for further action.

The Joint Aviation Authorities (JAA) has issued a regulation that is similar to SFAR 88 (66 FR 23086, May 7, 2001). (The JAA is an associated body of the European Civil Aviation Conference (ECAC) representing the civil aviation regulatory authorities of a number of European States who have agreed to co-operate in developing and implementing common safety regulatory standards and procedures.) Under this regulation, the JAA stated that all members of the ECAC that hold type certificates for transport category airplanes are required to conduct a design review against explosion risks.

We have determined that the actions identified in this AD are necessary to reduce the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

Relevant Service Information

Fokker Services B.V. has issued Fokker Service Bulletin SBF100-28-068, dated August 10, 2012, including the following attachments (* the issue date is not specified on the drawing):

- Fokker Drawing W41192, Sheet 051, Issue AS*;
- Fokker Drawing W41208, Sheet 002, Issue B*;
- Fokker Drawing W59520, Sheet 002, Issue E, dated March 18, 2011; and

- Fokker Manual Change Notification MCNM F100-143, dated August 10, 2012.

The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

This AD requires revisions to certain operator maintenance documents to include Critical Design Configuration Control Limitations (CDCCLs). Compliance with these CDCCLs is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (j) of this AD. The request should include a description of changes to the required actions that will ensure the continued operational safety of the airplane.

Where EASA Airworthiness Directive 2012-0241, dated November 12, 2012, specifies to install a fuse in the wiring of the level control pilot valve, that action is not

required by this AD. That action is already required by AD 2011-21-01, Amendment 39-16824 (76 FR 63156, October 12, 2011).

Costs of Compliance

We estimate that this proposed AD affects 10 products of U.S. registry.

We estimate the following costs to comply with this proposed AD:

| Estimated costs | | | | |
|--|---|-------------------|-------------------------|-------------------------------|
| Action | Labor cost | Parts cost | Cost per product | Cost on U.S. operators |
| Installation and revision of maintenance program | 29 work-hours X \$85 per hour = \$2,465 | \$4,600 | \$7,065 | \$70,650 |

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

Fokker Services B.V.: Docket No. FAA-2013-0630; Directorate Identifier 2012-NM-213-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Fokker Services B.V. Model F.28 Mark 0070 and 0100 airplanes, certificated in any category, all serial numbers.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Reason

This AD was prompted by a design review, which revealed that, under certain failure conditions, wiring in the main fuel tank could develop a short circuit that might cause a hot spot on the wiring conduit or puncture the wiring conduit wall. We are

issuing this AD to prevent an ignition source in the main fuel tank vapor space, which could result in a fuel tank explosion and consequent loss of the airplane.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Installation of Fuses

Within 24 months after the effective date of this AD: Install fuses in the power supply wiring and return wiring, as applicable, for the reed-switches in the main fuel tank overflow valve, level control pilot valve solenoid, re/de-fuel shut off valve solenoid, and the collector-tank low level float switch, in accordance with the Accomplishment Instructions of Fokker Service Bulletin SBF100-28-068, dated August 10, 2012, which includes the attachments identified in paragraphs (g)(1) through (g)(4) of this AD (* the issue date is not specified on the drawing).

(1) Fokker Drawing W41192, Sheet 051, Issue AS*.

(2) Fokker Drawing W41208, Sheet 002, Issue B*.

(3) Fokker Drawing W59520, Sheet 002, Issue E, dated March 18, 2011.

(4) Fokker Manual Change Notification MCNM F100-143, dated August 10, 2012.

(h) Revision of Maintenance or Inspection Program

After installing the fuses as required by paragraph (g) of this AD, before further flight, revise the maintenance or inspection program, as applicable, by incorporating the CDCCLs specified in paragraph 1.L.(1)(c) of Fokker Service Bulletin SBF100-28-068,

dated August 10, 2012, which includes the attachments identified in paragraphs (h)(1) through (h)(4) of this AD (* the issue date is not specified on the drawing).

(1) Fokker Drawing W41192, Sheet 051, Issue AS*.

(2) Fokker Drawing W41208, Sheet 002, Issue B*.

(3) Fokker Drawing W59520, Sheet 002, Issue E, dated March 18, 2011.

(4) Fokker Manual Change Notification MCNM F100-143, dated August 10, 2012.

(i) No Alternative CDCCLs

After the CDCCLs have been incorporated, as required by paragraph (h) of this AD, no alternative CDCCLs may be used unless the CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (j) of this AD.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Tom Rodriguez, Aerospace Engineer, International Branch; ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW, Renton, WA 98057-3356; telephone 425-227-1137; fax 425-227-1137.

Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency Airworthiness Directive 2012-0241, dated November 12, 2012, for related information. The MCAI can be found in the AD docket on the Internet at <http://www.regulations.gov>.

(2) For service information identified in this AD, contact Fokker Services B.V., Technical Services Dept., P.O. Box 1357, 2130 EL Hoofddorp, the Netherlands; telephone +31 (0)88-6280-350; fax +31 (0)88-6280-111; email technicalservices@fokker.com; Internet <http://www.myfokkerfleet.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425 227-1221.

Issued in Renton, Washington, on July 21, 2013.

Stephen P. Boyd,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2013-18389 Filed 07/30/2013 at 8:45 am; Publication Date: 07/31/2013]